4.3.3.2 Immobilized Disposition Alternative

The environmental impacts described in the following sections are based on the analysis of two facilities for the Immobilized Disposition Alternative. These two facilities are the ceramic immobilization facility (Section 4.3.3.2.1) and the deep borehole complex (Section 4.3.3.2.2).

4.3.3.2.1 *Ceramic Immobilization Facility (for Borehole)*

The environmental impacts described in the following sections are based on the analysis of the ceramic immobilization facility for the Immobilized Disposition Alternative as described in Section 2.4.3.2.1. No radioactive isotopes would be included in the ceramic matrix. The representative sites used for this analysis are Hanford, NTS, INEL, Pantex, ORR, and SRS.

4.3.3.2.1.1 *Land Resources*

A new ceramic immobilization facility would disturb 28.3 ha (70 acres) of land during construction of which 18.2 ha (45 acres) would be used during operations. The need for buffer zones would be determined during site-specific, tiered NEPA documentation. This section describes the impacts of constructing and operating the ceramic immobilization facility to land resources for each representative site.

Construction and operation of the ceramic immobilization facility should not cause indirect land use impacts at the analysis sites. As discussed in Section 4.3.3.2.1.8, in-migration of workers would be required during the operational phase at all sites analyzed. In-migration would occur during construction only at INEL and Pantex. However, it is expected that historic housing construction rates at each analysis site should accommodate the in-migrating population. Therefore, offsite land use at the analysis sites would not be affected.

Hanford Site

Land Use. The ceramic immobilization facility would utilize vacant land in the 200 Area adjacent to 200 East. Construction and operation of the ceramic immobilization facility would be in conformance with the existing and future land use as described in the current *Hanford Site Development Plan* and with ongoing discussions in the comprehensive land-use planning process. According to the *Hanford Site Development Plan*, 200 Area's land use is identified as waste operations, which includes radioactive material management, processing, and storage (HF DOE 1993c:13,14). [Text deleted.]

Construction and operation would not affect other Hanford or offsite land uses. No prime farmlands exist onsite. Construction and operation of the facility would be compatible with State and local (Benton, Franklin, and Grant Counties and the City of Richland) land use plans, policies, and controls since Hanford provides information to these jurisdictions for use in their efforts to comply with the GMA (HF DOE 1993c:17).

Visual Resources. [Text deleted.] Construction and operation would be consistent with the industrialized landscape character of the 200 Areas and current VRM Class 5 designation. A potential visual impact during operation would be from stack plumes which could be visible from public viewpoints with high sensitivity levels including State Highways 24 and 240, and the City of Richland; however, because of the viewing distance and compatibility of the proposal with existing industrial character, visual impacts would not occur.

Nevada Test Site

Land Use. The ceramic immobilization facility would be on undeveloped land in Area 6 adjacent to the DAF. Construction and operation of the facility in Area 6 would not be in conformance with the *Nevada Test Site Development Plan*, which designates the southeast area of NTS as a nonnuclear test area. [Text deleted.] However, Area 6 is a potential site for long-term storage and disposition of weapons-usable fissile materials as

part of the NTS defense program material disposition activities considered under the Expanded Use Alternative (part of the Preferred Alternative) of the NTS EIS (NT DOE 1996c:3-8,3-9; NT DOE 1996e:A-18). [Text deleted.]

Construction and operation would not affect other NTS or offsite land uses. No prime farmlands exist onsite. The alternative would not be in conflict with land-use plans, policies, and controls of adjacent jurisdictions since none of these counties or municipalities currently undertake land-use planning.

Visual Resources. [Text deleted.] Construction and operation of the facility would be compatible with the industrial landscape character of the adjacent DAF and the current VRM Class 5 designation of Area 6. [Text deleted.] Views of the proposed action would be blocked from sensitive viewpoints accessible to the public by mountainous terrain.

Idaho National Engineering Laboratory

Land Use. The ceramic immobilization facility would be located on undeveloped land in the ICPP security area, which is situated within the central core area/Prime Development Land Zone of INEL (IN DOE 1992g:12). Construction and operation of the facility would be consistent with the current *Idaho National Engineering Laboratory Site Development Plan*, which designates the future land use of the ICPP as receiving and storing spent nuclear fuels and radioactive wastes (IN DOE 1994d:9-8). [Text deleted.]

Construction would not affect other INEL or offsite land uses. No prime farmlands exist onsite. Construction would not be in conflict with land-use plans, policies, and controls of adjacent counties and the City of Idaho Falls since they do not address the potential site.

Visual Resources. [Text deleted.] Construction and operations would be compatible with the present visual character of INEL, which consists of large industrial facilities and stack plumes. Potential visual impacts during operation could occur from the additional stack plumes; however, the proposal would be consistent with the existing Class 5 industrial character of the ICPP.

Pantex Plant

Land Use. The ceramic immobilization facility would be located on undeveloped land in Zone 4. The potential action would be inconsistent with the current *Pantex Site Development Plan* master plan, which designates Zone 4 for weapons and weapon components staging (PX DOE 1995g:16). However, Pantex could revise the site development plan should Pantex be selected for this alternative.

Construction and operation would not affect other Pantex or offsite land uses. There would be no impacts to prime farmland. The alternative would not be in conflict with the city of Amarillo's land-use plans, policies, and controls since they do not address Pantex.

Visual Resources. [Text deleted.] Potential visual impacts could occur during operation from the additional stack plumes; however, the visual environment would be consistent with the existing industrialized landscape character, and current VRM Class 5 designation of Zone 4.

Oak Ridge Reservation

Land Use. The ceramic immobilization facility would be located on undeveloped land at the northwest quadrant of the Route 95/Bear Creek Road intersection. The alternative would be in conformance with the future land-use plan of the current *Oak Ridge Reservation Site Development and Facilities Utilization Plan*, which designates a portion of the site as a major waste management area (OR DOE 1991f:1-7). Vacant land would be used. [Text deleted.]

Construction and operation would be compatible with other ORR and offsite land uses. No prime farmlands exist onsite. The ceramic immobilization facility would not be in conflict with city of Oak Ridge land use plans, policies, and controls since the current *Oak Ridge Area Land Use Plan* designates the potential site for Industrial and Public land use.

Visual Resources. [Text deleted.] Construction and operation of the facility would change the current VRM Class 4 designation of the Bear Creek Road/Route 95 site to Class 5. Additionally, potential visual impacts could occur during operation from the new stack plumes. Construction and operation activities would be highly visible from Bear Creek Road and Route 95, public roadways with high sensitivity levels.

Savannah River Site

Land Use. A new ceramic immobilization facility would be located on undeveloped land in the F-Area. Facility construction and operation would conform with existing and future land use as designated by the current *Savannah River Site Development Plan*. According to the plan, current F-Area land use is designated industrial operations, while the future land use category is primary industrial mission. Specifically, the F-Area is one of four SRS Waste Management facilities (SR DOE 1994d:2,11,12). Vacant land would be used.

Construction and operation would not affect other SRS or offsite land uses. There is no prime farmland on SRS. Construction would not be in conflict with land-use plans, policies, and controls of adjacent counties and cities since they do not address SRS.

Visual Resources. [Text deleted.] Construction and operation would occur within an area of similar industrial landscape character. Potential visual impacts could occur during operation from additional stack plumes; however, the proposal would be consistent with the VRM Class 5 designation of the F-Area.

[Text deleted.]